

U.S.C.G. Merchant Marine Exam
Master of Unlimited Tonnage
Q305 Navigation Problems - Chart 12221TR
(Sample Examination)

Choose the best answer to the following Multiple Choice questions.

1. What is the approximate geographic range of Assateague Light, VA, if your height of eye is 52 feet (15.8 meters)? Refer to "Reprints from the LIGHT LISTS AND COAST PILOTS".
- (A) 14.1 nm
 - (B) 21.8 nm
 - (C) 23.0 nm
 - (D) 50.2 nm

If choice C is selected set score to 1.

2. The following questions are to be answered using Chart 12221 TR, Chesapeake Bay Entrance, and supporting publications.

You are southbound along the coast on a course of $180^{\circ}T$ and the engine speed is 14 knots.
Your draft is 16 feet.
Gyro error is $2^{\circ}W$.
Use $10^{\circ}W$ variation where required.

At 2000 Hog Island Lighted Bell Buoy "12" bears $199^{\circ}T$ and Buoy "GM" bears $249^{\circ}T$.

What is your position ?

- (A) $37^{\circ}03.5'N, 75^{\circ}32.2'W$
- (B) $37^{\circ}23.5'N, 75^{\circ}32.2'W$
- (C) $37^{\circ}35.0'N, 75^{\circ}32.2'W$
- (D) $37^{\circ}03.5'N, 75^{\circ}02.2'W$

If choice B is selected set score to 1.

3. From your 2000 position you change course to $206^{\circ}T$. What time would you expect to be abeam of Hog Island Buoy "12"?

- (A) 2026
- (B) 2031
- (C) 2040
- (D) 2021

If choice A is selected set score to 1.

4. You should expect to pass how far off buoy "12"?

- (A) 0.8 mile
- (B) 1.7 miles
- (C) 1.2 miles
- (D) 2.1 miles

If choice A is selected set score to 1.

5. At 2030 you take the following bearings:
Sand Shoal Inlet South Light - 275°T
Cape Charles Light - 235°T

What is the set and drift from 2000 to 2030?

- (A) 268° at 1.4 knots
- (B) 088° at 1.4 knots
- (C) 268° at 0.7 knot
- (D) 088° at 0.7 knot

If choice A is selected set score to 1.

6. From your 2030 fix you change course to 195°T, and leave the engine speed at 14 knots.

At 2045, your position is Lat 37°13.50'N Long 075°38.05'W

Which statement is TRUE?

- (A) Your vessel is located in a restricted area.
- (B) Your fathometer reading is approximately 40 fathoms.
- (C) Cape Charles Light bears 050° relative.
- (D) Chesapeake Light bears 190° relative.

If choice C is selected set score to 1.

7. You continue to steer 195°T. You pass Cape Charles Lighted Bell Buoy "14", 0.9 miles abeam to starboard at 2111. What is your speed made good from 2045 to 2111?

- (A) 13.7 knots
- (B) 14.8 knots
- (C) 14.1 knots
- (D) 14.5 knots

If choice B is selected set score to 1.

8. What is your course made good from 2045 to 2111?

- (A) 190°T
- (B) 196°T
- (C) 187°T
- (D) 193°T

If choice D is selected set score to 1.

9. If you are going to head directly for Chesapeake Light from your 2111 fix, what is the course to make good?

- (A) 190°T
- (B) 199°T
- (C) 193°T
- (D) 196°T

If choice A is selected set score to 1.

10. At 2200, you alter course to 204°T, at 14 knots. You expect a current on this leg of the trip, setting 325° at 1.5 knots. Which course should you steer per gyro compass to make good the true course?

- (A) 184°pgc
- (B) 201°pgc
- (C) 190°pgc
- (D) 194°pgc

If choice B is selected set score to 1.